

ABSTRACT OF THE DISCLOSURE

A stacked-gate structure includes a tunnel insulation film, a floating gate electrode, an inter-electrode insulation film and a control gate electrode,
5 which are stacked on a semiconductor substrate.

The inter-electrode insulation film has a three-layer structure that includes a first oxidant barrier layer, an intermediate insulation layer and a second oxidant barrier layer. Gate side-wall insulation films are
10 formed on both side surfaces of the stacked-gate structure. The thickness of the gate side-wall insulation film increases, at a side portion of the floating gate electrode, from the inter-electrode insulation film side toward the tunnel insulation film side. The width of the floating gate electrode in
15 a channel length direction decreases from the inter-electrode insulation film side toward the tunnel insulation film side.